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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,464	12/28/2001	Michael J. Annen	57282US002	8379
32692	7590	06/01/2004	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY				MARCHESSI, MICHAEL A
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ART UNIT		PAPER NUMBER		
1755				

DATE MAILED: 06/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)	
10/033,464	ANNEN, MICHAEL J.	
Examiner	Art Unit	
Michael A Marcheschi	1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-26 is/are rejected.
- 7) Claim(s) ____ is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/22/02, 8/27/02, 10/31/02, 4/1/03
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: ____.

Claims 1-26 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite as to the phrase “sheet-like” because the examiner is unclear as to what this encompasses, thus rendering the scope of the claim unclear. What is considered sheet-like? Is it a sheet or not? The term “like” when appended to “sheet” renders the claim indefinite, thus the term “like” should be canceled.

Claim 1 is also indefinite because step (c) is not defined in a clear and concise manner and should be rewritten (this step should include commas where appropriate).

Claim 19 is indefinite because the phrase “the distance between...coating” lacks antecedent basis since a “distance” has not been **literally** defined in claim 1.

The other claims are indefinite because they depend on indefinite claims.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15, 17-20 and 22-26 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 09/850,661 (publication number 20020090901) which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e) if published or patented. This provisional rejection under 35 U.S.C. 103(a) is based upon a presumption of future publication or patenting of the conflicting application.

This provisional rejection might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention “by another,” or by a showing of a date of invention for the instant application prior to the effective U.S. filing date of the copending application under 37 CFR 1.131. For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, **at the time the invention was made**, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

The above publication teaches in sections [0034], [0060]-[0065], [0068], [0074]-[0076], [0088], [0092], [0095], [0123] and [0124] and the figures, a method for making and embossed (textured) abrasive article which comprises (1) providing an open cell foam backing (polyurethane), (2) providing an abrasive coating (abrasive particles and curable binder) on said

backing and (3) imparting a textured surface to the abrasive article using a coating roll (i.e. patterned embossing tool), wherein the coating tool has the characteristics of the claimed embossing tool. The textured surface can be random or uniform. The abrasive particles can have the claimed size.

The above publication teaches the claimed method and although it is not literally stated that pressure is applied, this limitation is obvious because during embossing (or texturing), pressure must be applied to the tool in order to emboss (or provide a textured surface to) the abrasive article. In view of this, this reads on the claimed application of pressure. With the application of pressure being obvious, the limitations of claims 1-4, 8-11, 13-15, 17-20, and 22 are met. With respect to the limitation of claim 26, the pressure utilized and needed to form the textured surface is obvious to the skilled artisan absent evidence to the contrary. With respect to the limitation of claim 12, the depth of the depressed areas is obvious depending on the depth of the depressed area sought in the abrasive product, which is dependent on the end use of the article. With respect to the limitations of claims 5-7, the use of a make coat, abrasive particles and size coat to form the abrasive coating is an obvious variation of the slurry coating method of the reference because this method (make coat, abrasive particles and size coat) is notoriously well known and a conventional way to form an abrasive coating on a substrate. The substitution of one known method for another that is used to form the same structure (i.e. abrasive coating) is well within the level of ordinary skill in the art. With respect to the limitations of claims 23-25, the use of a heated embossing tool is well within the level of ordinary skill in the art because a heated embossing tool will soften the binder in the abrasive coating, thus making the embossing easier absent evidence to the contrary.

Claims 16 and 21 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 09/850,661 (publication number 20020090901), as defined above, further in view of Lise et al.

Lise teaches in column 4, lines 49-53 and the claims that the use of an open or closed cell foam is known to be used to make abrasive articles having an abrasive coating thereon (on said foam).

It would have been obvious to use a closed cell foam material (i.e. this broadly makes obvious polyethylene foam because it is a closed cell foam) in place of the open cell foam in the teachings according to the primary reference because both of these foam materials are known to be used to make abrasive articles having an abrasive coating on said foam, as is clearly shown by the secondary reference. The substitution of one substrate for another that is used to form the same structure (i.e. abrasive coating on a foam substrate) is well within the level of ordinary skill in the art.

Claims 5-7 are provisionally rejected under 35 U.S.C. 103(a) as being obvious over copending Application No. 09/850,661 (publication number 20020090901), as defined above, further in view of Lise et al. **This rejection is an alternative rejection to the rejection of claims 5-7 defined above.**

Lise teaches in the claims that it is well known to make an abrasive coating using a make coat, abrasive particles and a size coat.

The use of a make coat, abrasive particles and size coat to form the abrasive coating is an obvious variation of the slurry coating method of the primary reference because this method (make coat, abrasive particles and size coat) is notoriously well known and a conventional way to form an abrasive coating on a substrate, as shown by the secondary reference. The substitution of one known method for another that is used to form the same structure (i.e. abrasive coating) is well within the level of ordinary skill in the art.

Claims 1-4, 8-15, 17-20, and 22. are provisionally rejected under 35 U.S.C. 102(e) as being anticipated by copending Application No. 09/850,661 (publication number 20020090901) which has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the copending application, it would constitute prior art under 35 U.S.C. 102(e) if published under 35 U.S.C. 122(b) or patented. This provisional rejection under 35 U.S.C. 102(e) is based upon a presumption of future publication or patenting of the copending application.

This provisional rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the copending application was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. This rejection may not be overcome by the filing of a terminal disclaimer. See *In re Bartfeld*, 925 F.2d 1450, 17 USPQ2d 1885 (Fed. Cir. 1991).

The above publication teaches the claimed method and although it is not literally stated that pressure is applied, this limitation is inherent because during embossing (or texturing), pressure must be applied to the tool in order to emboss (or provide a textured surface to) the

abrasive article. In view of this, this reads on the claimed application of pressure. With the application of pressure being inherent, the reference anticipates the limitations of claims 1-4, 8-15, 17-20, and 22..

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-26 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 5-14 and 20 of copending Application No. 10/137,134. Although the conflicting claims are not identical, they are not patentably distinct from each other because the reduction to practice of the copending claims would render obvious the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The copending application claims the instantly claimed method and although it is not literally stated that pressure is applied, this limitation is obvious because during texturing (embossing), pressure must be applied to the tool in order to emboss (or provide a textured surface to) the abrasive article. In view of this, this reads on the claimed application of pressure.

Although the copending application fails to literally define an “embossing tool”, it is the examiners position that the recitation of a production tool broadly reads on an embossing tool absent evidence to the contrary. The use of an embossing roll is also obvious in view of copending claim 11 because step (d) of this claims broadly encompasses the use of any article capable of imparting a texture. The copending claims define a curable binder and this broadly encompasses a radiation curable binder. Finally, the use of abrasive particles, in general reads on abrasive particle of any size, including the claimed size. With respect to the limitation of claim 26, the pressure utilized and needed to form the textured surface is obvious to the skilled artisan absent evidence to the contrary. With respect to the limitation of claim 12, the depth of the depressed areas is obvious depending on the depth of the depressed area sought in the abrasive product, which is dependent on the end use of the article. With respect to the limitations of claims 5-7, the use of a make coat, abrasive particles and size coat to form the abrasive coating is an obvious variation of the slurry coating method of the reference because this method (make coat, abrasive particles and size coat) is notoriously well known and a conventional way to form an abrasive coating on a substrate. The substitution of one known method for another that is used to form the same structure (i.e. abrasive coating) is well within the level of ordinary skill in the art. With respect to the limitations of claims 23-25, the use of a heated embossing tool is well within the level of ordinary skill in the art because a heated embossing tool will soften the binder in the abrasive coating, thus making the embossing easier absent evidence to the contrary. Finally, with respect to claims 16 and 21, copending claim 20 defines a foam, in general, and this broadly encompasses and therefore makes obvious an open or closed cell foam.

In view of the teachings as set forth above, it is the examiners position that the references reasonably teach or suggest the limitations of the rejected claims.

"A reference is good not only for what it teaches but also for what one of ordinary skill might reasonably infer from the teachings. *In re Opprecht* 12 USPQ 2d 1235, 1236 (CAFC 1989); *In re Bode* USPQ 12; *In re Lamberti* 192 USPQ 278; *In re Bozek* 163 USPQ 545, 549 (CCPA 1969); *In re Van Mater* 144 USPQ 421; *In re Jacoby* 135 USPQ 317; *In re LeGrice* 133 USPQ 365; *In re Preda* 159 USPQ 342 (CCPA 1968)". In addition, "A reference can be used for all it realistically teaches and is not limited to the disclosure in its preferred embodiments" See *In re Van Marter*, 144 USPQ 421.

"A generic disclosure renders a claimed species *prima facie* obvious. *Ex parte George* 21 USPQ 2d 1057, 1060 (BPAI 1991); *In re Woodruff* 16 USPQ 2d 1934; *Merk & Co. v. Biocraft Lab. Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1983); *In re Susi* 169 USPQ 423 (CCPA 1971)".

The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549; *In re Wertheim* 191 USPQ 90 (CCPA 1976)".

Evidence of unexpected results must be clear and convincing. *In re Lohr* 137 USPQ 548. Evidence of unexpected results must be commensurate in scope with the subject matter claimed. *In re Linder* 173 USPQ 356.

The additional references cited on the 1449 have been reviewed by the examiner and are considered to be art of interest since they are cumulative to or less than the art relied upon in the above rejections.

Any foreign language documents submitted by applicant has been considered to the extent of the short explanation of significance, English abstract or English equivalent, if appropriate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael A Marcheschi
Primary Examiner
Art Unit 1755

MM
5/04